

I CLAIM:

1. In a video surveillance system used to monitor an area, a method of conserving data storage by storing data for each of a plurality of sequential frames at different resolutions depending upon an indication of motion being received, each frame comprised of a plurality of bits, the method comprising:

comparing a reference frame to a frame to obtain a difference;

determining if the difference exceeds a predetermined threshold;

operating on the frame at a regular resolution if the predetermined threshold is exceeded and at a reduced resolution that is less than the regular resolution if the predetermined threshold is not exceeded for the frame and a predetermined number of previous frames; and

repeating the steps of comparing, determining and operating for a plurality of subsequent frames that follow the frame.

2. The method according to claim 1, wherein the predetermined number of previous frames comprises a window of time.

3. The method according to claim 1, wherein the predetermined number of previous frames is zero.

4. The method according to claim 1, wherein the reduced resolution is less than one half of the regular resolution.

5. The method according to claim 1, further comprising,
prior to the step of comparing, setting the reference frame to an initial frame of the plurality of sequential frames.

6. The method according to claim 5, further comprising,
prior to the step of comparing, setting the target to a subsequent frame of the plurality of sequential frames.

7. The method according to claim 6, further comprising,

prior to the repeating step, redesignating as the reference frame the subsequent frame that was the target frame and redesignating as the target frame another subsequent frame that follows the subsequent frame.

8. The method according to claim 1 wherein the step of operating compresses the frame using one of the regular resolution and the reduced resolution.

9. The method according to claim 1 wherein the step of operating stores the frame using one of the regular resolution and the reduced resolution.

10. In a video surveillance system using a data delivery device to monitor an area, a method of correcting for cyclic noise resident in a plurality of sequential frames, each frame comprised of a plurality of bits, the method comprising:

installing the data delivery device in a position to monitor the area;

obtaining a cyclic noise pattern corresponding to the data delivery device; and

monitoring the area using data delivery device, thereby obtaining the plurality of sequential frames; and

removing the cyclic noise resident in at least certain ones of the plurality of sequential frames to obtain a corrected plurality of sequential frames.

11. The method according to claim 10, further comprising:

authenticating at least one frame in the plurality of sequential frames by one of not removing the cyclic noise from the one frame and reintroducing the cyclic noise removed from the one frame, thereby using the cyclic noise as a watermark.

12. The method according to claim 10, further comprising:

comparing one frame of the plurality of sequential frames with another frame of the plurality of sequential frames to obtain a difference;

determining if the difference exceeds a predetermined threshold; and

operating upon the another frame at a regular resolution if the predetermined threshold is exceeded and at a reduced resolution that is less than the regular resolution if the

predetermined threshold is not exceeded for the frame and a predetermined number of previous frames.

13. The method according to claim 12, wherein the predetermined number of previous frames comprises a window of time.

14. The method according to claim 12, wherein the predetermined number of previous frames is zero.

15. The method according to claim 12, wherein the reduced resolution is less than one half of the regular resolution.

16. The method according to claim 12 wherein the step of operating stores the frame using one of the regular resolution and the reduced resolution.

17. The method according to claim 16 further including the step of storing the cyclic noise with the plurality of sequential frames.

18. The method according to claim 10 wherein the step of installing further includes the step of installing at least one component, and further including the steps of
determining that the cyclic noise has changed;
replacing one of the data delivery device and the one component; and
repeating the step of obtaining the cyclic noise pattern to obtain a new cyclic noise pattern.

19. The method according to claim 10 further including a initialization warm up period before the step of monitoring during which period the data delivery device is turned on.

20. The method according to claim 10 wherein the step of obtaining a cyclic noise pattern includes the steps of:
recording for a period a predetermined test pattern of frames;
obtaining a difference from a reference pattern for each of the predetermined test pattern of frames obtained during the period;

21. In a video surveillance system having a fixed position camera, a method of conserving data storage by adjusting a frame storage size at which individual frames of a plurality of sequential frames are stored depending upon an indication of motion being received, each frame comprised of a plurality of bits, the method comprising:

reducing the frame storage size for a first group of subsequent frames from a larger frame storage size to a smaller frame storage size when the predetermined threshold is not exceeded; and

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